

Requested Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A unit cell for a solid oxide fuel cell, comprising:
a substrate;
a battery element formed on the substrate and provided with an electrode layer and an electrolyte layer;
a high porosity layer disposed in the substrate; and
a low porosity layer including a first low porosity layer, disposed in the substrate with material to be included in the substrate, and a second low porosity layer, disposed in the electrode layer with material to be included in the electrode layer, and the second low porosity layer being formed and laminated on the first low porosity layer, with the electrolyte layer being formed and laminated on the second low porosity layer,
wherein a porosity of the first low porosity layer is lower than that of the high porosity layer and equal to or higher than that of the second low porosity layer, with value ranges of a pore size, a thickness and a surface roughness Ra of the first low porosity layer being the same as those of the second low porosity layer.
2. (Currently amended) The unit cell according to claim 1, wherein the electrolyte layer includes solid oxide.

3. (Previously presented) The unit cell according to claim 1, wherein a value range of the pore size of the first low porosity layer and that of the second low porosity layer are equal to or less than 10 μm .

4. (Previously presented) The unit cell according to claim 1, wherein the material of the second low porosity layer includes material to be included in the electrolyte layer.

5. (Canceled).

6. (Canceled).

7. (Canceled).

8. (Canceled).

9. (Previously presented) The unit cell according to claim 1, wherein a value range of the thickness of the first low porosity layer and that of the second low porosity layer are equal to or less than 500 μm .

10. (Previously presented) The unit cell according to claim 1, wherein a value range of the surface roughness R_a of the first low porosity layer and that of the second low porosity layer are equal to or less than 5 μm .

11. (Previously presented) The unit cell according to claim 1, wherein the porosity of the first low porosity layer and that of the second low porosity layer are not less than 10%.

12. (Previously presented) The unit cell according to claim 11, wherein the porosity of the first low porosity layer decreased toward the battery element.

13. (Previously presented) The unit cell according to claim 1, wherein the electrolyte layer has a thickness equal to or less than 50 μm .

14. (Original) The unit cell according to claim 1, wherein the substrate has a gas permeability.

15. (Previously presented) A method of manufacturing a unit cell for a solid oxide fuel cell, comprising:

preparing a substrate including a high porosity layer and a first low porosity layer; and
forming a battery element provided with ~~an~~ a pair of electrode layers and an electrolyte layer disposed therebetween, on the first low porosity layer of the substrate, with one of electrode layers being a second low porosity layer formed and laminated on the first low porosity layer, and the electrolyte layer being formed on the second low porosity, wherein porosity of the first low porosity layer is lower than that of the high porosity layer and equal to or higher than that of the second low porosity layer, with value ranges of a

pore size, a thickness and a surface roughness Ra of the first low porosity layer being the same as those of the second low porosity layer.

16. (Previously presented) The method of manufacturing the unit cell for the solid oxide fuel cell according to claim 15, wherein at least one of the first low porosity layer and the second low porosity layer is formed by at least one of a slurry coating method and a green sheet sintering method.

17. (Previously presented) The method of manufacturing the unit cell for the solid oxide fuel cell according to claim 15, wherein the electrolyte layer is formed by a physical vapor deposition method.